

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 2

mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

said glass panel and said load-bearing attachment member joined by an adhesive layer;

said adhesive layer consisting essentially of a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between said first surface of said glass panel and said attachment member, said layer of adhesive cured to form a joint suitable for use on the vehicle;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said glass panel and said attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said layer of cured adhesive bonding said load bearing attachment member to said first surface of said glass panel prior to installation of said assembly in the vehicle and without exposure of said bonded load bearing attachment member on said second surface of said panel.

-2- (twice amended)

The vehicular window assembly of claim 1 wherein said adhesive comprises an isocyanate component and a polyol component, and said rapid set characteristic is such that after mixing said isocyanate component and said polyol component, and after relatively promptly contacting said glass panel to said attachment member, said glass panel and said

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 3

D2 end  
attachment member are held by said adhesive layer against movement resulting from weight of said panel and said attachment member, and held by said adhesive layer against movement resulting from application of a relatively slight force, within said time period in which said adhesive achieves a set.

-3- (amended)

The vehicular window assembly of claim 2 wherein said time period in which said adhesive achieves a set is about 90 seconds or less.

D3  
-4- (amended)

The vehicular window assembly of claim 3 wherein said time period in which said adhesive achieves a set is about 45 seconds or less.

5  
-6- (amended)

D4  
The vehicular window assembly of claim [5] 1 wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 50 minutes.

14  
-15- (amended)

D5  
The vehicular window assembly of claim 1 wherein the thickness of said adhesive layer disposed between said attachment member and said glass panel is from about 0.01 mm to about 4.0 mm.

15  
-16- (amended)

The vehicular window assembly of claim 14 wherein the thickness of said adhesive layer is from about 0.25 mm to about 2.0 mm.

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 4

<sup>16</sup>  
~~-17-~~ (amended)

D5 end  
The vehicular window assembly of claim <sup>15</sup>~~16~~ wherein the thickness of said adhesive layer is from about 0.5 mm to about 1.0 mm.

<sup>17</sup>  
~~-18-~~ (thrice amended)

A bonded vehicular assembly suitable for use in a vehicle, said assembly comprising:  
a glass substrate having a first surface and an opposing second surface;  
a load-bearing attachment member comprising a material selected from the group consisting of metal, plastic, and combinations thereof, said attachment member being selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

D6  
said glass substrate and said load-bearing attachment member joined by an adhesive layer;

said adhesive layer consisting essentially of a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between and bonding said first surface of said glass substrate to said attachment member, and

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said glass [panel] substrate and said attachment member, and wherein said

79

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 5

rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set, and wherein upon curing of said adhesive layer, a joint suitable for use on [a] the vehicle is formed;

said layer of cured adhesive bonding said load bearing attachment member to said first surface of said glass substrate prior to installation of said assembly in the vehicle and without exposure of said bonded load bearing attachment member on said second surface of said substrate.

<sup>28</sup>~~39~~ - (thrice amended)

The bonded vehicular window assembly of claim <sup>26</sup>~~36~~ wherein said attachment member is a hinge having a first portion and a second portion that is movable with respect to said first portion, and wherein said first portion is bonded to said first surface of said glass substrate by [an amount of] said urethane adhesive layer disposed between and contacting said first portion and said glass substrate.

<sup>30</sup>~~41~~ - (thrice amended)

A vehicular panel assembly suitable for use in a vehicle, said assembly comprising:

a glass substrate having a first surface and an opposite second surface;  
at least one load-bearing attachment member affixed to said glass substrate and selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 6

members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

said glass substrate and said load-bearing attachment member joined by an adhesive layer;

D8 end  
said adhesive layer consisting essentially of a layer of a two-component urethane adhesive disposed between and bonding said at least one attachment member to said first surface of said glass substrate, said layer of adhesive cured to form a joint suitable for use on [a] the vehicle, wherein said adhesive comprises an isocyanate component and a polyol component wherein said adhesive further includes an amine-based catalyst and achieves a set within about 3 minutes;

said layer of cured adhesive bonding said load bearing attachment member to said first surface of said glass substrate prior to installation of said assembly in the vehicle and without exposure of said bonded load bearing attachment member on said second surface of said substrate.

~~36-41~~ (thrice amended)

A method of forming a bonded vehicular assembly by adhering a load-bearing attachment member to a glass surface, said method comprising:

D9  
providing a substrate having a first glass surface and an opposing second surface;

providing an attachment member to be adhered to said first glass surface, said attachment member having a mounting surface;

81

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 7

selecting said attachment member from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members;

depositing a layer of an adhesive on at least one of said attachment member mounting surface and said first glass surface, said layer of adhesive consisting essentially of  
[providing] a rapid set, rapid cure, two-component urethane adhesive;

[depositing an amount of said adhesive on at least one of said attachment member mounting surface and said first glass surface;]

positioning said attachment member and said substrate such that said adhesive layer is disposed between and contacting said attachment member mounting surface and at least a portion of said first glass surface of said substrate without exposure of said attachment member on said opposing second surface of said substrate;

said positioning being achieved within about 3 minutes after said depositing step; and

curing said adhesive layer, said cured adhesive layer bonding said attachment member to said first glass surface prior to installation of said assembly in the vehicle.

40-60- (twice amended)

The method of claim <sup>36</sup>~~47~~ further comprising, prior to depositing said adhesive

layer, a step of:

D9 end

D10

82

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 8

depositing a layer of at least one of an adhesion promoter and a primer to at least one of said first glass surface and said attachment member mounting surface.

<sup>41</sup>  
-~~61~~- (twice amended)

The method of claim <sup>36</sup>~~47~~ wherein the thickness of said adhesive layer disposed between said attachment member and at least a portion of said first glass surface is from about 0.01 mm to about 4.0 mm.

<sup>42</sup>  
-~~62~~- (amended)

The method of claim <sup>41</sup>~~61~~ wherein the thickness of said adhesive layer is from about 0.25 mm to about 2.0 mm.

<sup>43</sup>  
-~~63~~- (amended)

The method of claim <sup>42</sup>~~62~~ wherein the thickness of said adhesive layer is from about 0.5 mm to about 1.0 mm.

<sup>47</sup>  
-~~61~~- (amended)

The method of claim <sup>45</sup>~~68~~ [wherein said providing a] including delivering said rapid set, rapid cure, two-component urethane [is performed by delivering said] adhesive through thermally controlled lines to said dispense metering unit.

<sup>50</sup>  
-~~70~~- (thrice amended)

A method of forming a bonded vehicular assembly by adhering an attachment member to a glass substrate, said method comprising:  
providing a glass substrate having a first surface and an opposing second surface;

83

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 9

providing a load-bearing attachment member to be adhered to said first surface of said glass substrate, said attachment member having a mounting surface;

selecting said attachment member from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members;

[providing a rapid set, rapid cure, two-component urethane adhesive;]

forming a frit layer on said first surface of said glass substrate;

depositing [an amount] a layer of [said] an adhesive on at least one of said attachment member mounting surface and said frit layer, said layer of adhesive consisting essentially of a rapid set, rapid cure, two-component urethane adhesive;

positioning said attachment member and said substrate such that said adhesive layer is disposed between and contacting said attachment member and at least a portion of said frit layer formed on said substrate without exposure of said attachment member on said second surface of said substrate, said positioning step being performed within about 3 minutes of said depositing step; and

curing said adhesive layer, said cured adhesive layer bonding said attachment member to said first glass surface prior to installation of said assembly in the vehicle.

5/ 71- (thrice amended)

A moveable vehicular window assembly comprising:



Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 10

a glass panel having a first surface an opposing second surface and comprising a layer of frit disposed on said first surface;

a load-bearing attachment member comprising a material selected from the group consisting of metal, plastic, and combinations thereof, said attachment member being selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, hinge members, brake lights, gaskets and rearview mirrors; and

said glass panel and said load-bearing attachment member joined by an adhesive layer;

said adhesive layer consisting essentially of a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between said layer of frit and said attachment member, wherein said adhesive comprises an isocyanate component and a polyol component, said layer of adhesive cured to form a joint suitable for use on a vehicle;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive layer between said layer of frit and said attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said layer of cured adhesive bonding said load bearing attachment member to said layer of frit on said first surface of said glass panel prior to installation of said assembly

D13 cont

85

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 11

in the vehicle and without exposure of said load bearing attachment member on said second surface of said panel.

<sup>52</sup>

~~-72-~~ (thrice amended)

<sup>51</sup>

D13 end  
The movable vehicular window assembly of claim <sup>51</sup>71 wherein said rapid set characteristic is such that after mixing said isocyanate component and said polyol component, and after relatively promptly contacting said layer of frit on said glass panel to said attachment member, said layer of frit on said glass panel and said attachment member are held by said adhesive layer against movement resulting from the weight of said panel and said attachment member, and held by said adhesive layer against movement resulting from application of a relatively slight force, within said time period in which said adhesive achieves a set.

<sup>53</sup>

~~-73-~~ (amended)

<sup>52</sup>

D14  
The movable vehicular window assembly of claim <sup>52</sup>72 wherein said time period in which said adhesive achieves a set is about 90 seconds or less.

<sup>54</sup>

~~-74-~~ (amended)

<sup>53</sup>

The movable vehicular window assembly of claim <sup>53</sup>73 wherein said time period in which said adhesive achieves a set is about 45 seconds or less.

<sup>57</sup>

~~-79-~~ (amended)

<sup>51</sup>

D15  
The movable vehicular window assembly of claim <sup>51</sup>71 wherein said movable vehicular window assembly is [adapted to be] a window assembly selected from the group consisting of a hinged window assembly, a sunroof, a door lift window, a liftgate, and a sliding window assembly.

86

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 12

~~63-85~~ (amended)

51

The movable vehicular window assembly of claim ~~71~~<sup>51</sup> wherein the thickness of said adhesive layer disposed between said attachment member and said glass panel is from about 0.01 mm to about 4.0 mm.

~~64-86~~ (amended)

63

D16 The movable vehicular window assembly of claim ~~85~~<sup>63</sup> wherein the thickness of said adhesive layer is from about 0.25 mm to about 2.0 mm.

~~65-87~~ (amended)

64

The movable vehicular window assembly of claim ~~86~~<sup>64</sup> wherein the thickness of said adhesive layer is from about 0.5 mm to about 1.0 mm.

~~66-88~~ (thrice amended)

A window assembly suitable for use in a vehicle, said assembly comprising:

a glass panel having a first surface and an opposing second surface;

a load-bearing attachment member adapted for attachment to said first surface

D17 of said glass panel and selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

said glass panel and said load-bearing attachment member joined by an adhesive layer;

87

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 13

said adhesive layer consisting essentially of a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between said first surface of said glass panel and said attachment member, wherein said adhesive comprises an isocyanate component and a polyol component, and wherein said adhesive is capable, upon curing, to form a bond that can withstand a tensile force of at least 5 lbs/in<sup>2</sup>, wherein said adhesive achieves a set within a time period of about 3 minutes or less, and includes an amine catalyst, said layer of adhesive bonding said load-bearing attachment member to said first surface of said glass panel prior to installation of said assembly in the vehicle and without exposure of said bonded load-bearing attachment member on said second surface of said panel.

67 ~~89~~ (thrice amended)

*Discont*  
A hinged vehicular window assembly for a vehicle suitable for use in a vehicle, said assembly comprising:

a glass panel having a first surface and an opposing second surface and comprising a layer of glass frit disposed on said first surface;

a hinged mounting member having a first portion bonded to said glass frit layer on said first surface of said glass panel by an adhesive layer consisting essentially [an amount] of a rapid set, rapid cure, two-component urethane adhesive disposed between said glass frit layer on said first surface of said glass panel and said first portion, said adhesive having a cure time within about 60 minutes or less, and said adhesive layer cured to form a joint suitable for use on [a] the vehicle, said hinged mounting member further having a second portion adapted to be affixed to a mounting surface, said urethane adhesive layer bonding said first portion of said hinged mounting member to said glass frit layer on said first

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 14

*D18*  
surface of said glass panel prior to installation of said assembly in the vehicle and without exposure of said hinged mounting member on said second surface of said glass panel.

*72* ~~-99-~~ (twice amended)

*67*  
The hinged assembly of claim ~~89~~ further comprising:

*D18*  
a layer of at least one of an adhesion promoter and a primer disposed between said glass frit layer on said first surface of said glass panel and said adhesive layer.

*79* ~~-106-~~ (amended)

*67*  
The hinged assembly of claim ~~89~~ wherein said adhesive layer has a thickness of from about 0.01 mm to about 4.0 mm.

*80* ~~-107-~~ (amended)

*D19*  
The hinged assembly of claim ~~106~~ wherein said adhesive layer has a thickness of from about 0.25 mm to about 2.0 mm.

*81* ~~-108-~~ (amended)

*80*  
The hinged assembly of claim ~~107~~ wherein said adhesive layer has a thickness of from about 0.5 mm to about 1.0 mm.

*83* ~~-110-~~ (thrice amended)

A movable window assembly for a vehicle, said assembly comprising:

a glass panel having a first surface and an opposing second surface; and

*D20*  
a load-bearing attachment member bonded to first surface of said glass panel by [an amount] a layer of adhesive consisting essentially of a rapid-set, rapid cure, two-component adhesive disposed between said attachment [mounting] member and said first surface of said glass panel, said adhesive layer comprising an isocyanate component and a

*89*

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 15

polyol component, said attachment member being selected from the group consisting of mounting components, hinges, clevises, latches, lift brackets, division bars, guide tracks, handles, guide pins, strut-mounting hardware, strikers, brake lights, power-mounting hardware, rails, gaskets, antennas, wiper mounts, cosmetic articles and rearview mirrors;

D20end wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive layer between said glass panel and said attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said adhesive layer bonding said load-bearing attachment member to said first surface of said glass panel prior to installation of said assembly in the vehicle and without exposure of said bonded load-bearing attachment member on said second surface of said glass panel.

88-116- (twice amended)

83

D21 The movable window assembly of claim 110 further comprising:

a layer of at least one of an adhesion promoter and a primer disposed between said first surface of said glass panel and said adhesive layer.

94-122- (twice amended)

83

D22 The movable window assembly of claim 110 wherein said assembly further

comprises:

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 16

*D22* a frit layer disposed on said first surface of said glass panel, said frit layer being disposed between said first surface of said glass panel and said adhesive layer such that said adhesive layer bonds said load bearing member directly to said frit layer.

*95* - ~~123~~ - (thrice amended)

A positionable sunroof adapted and suitable for use in a vehicle, said sunroof comprising:

a glass panel having a first surface and an opposing second surface;

*D23* at least one load-bearing hinge attachment component having a first portion bonded directly to said first surface of said glass panel by a layer of adhesive and a second portion being adapted for attachment to a vehicle mounting surface; and

said adhesive layer consisting essentially of a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between a portion of said first surface of said glass panel and said first portion of said hinge attachment component, wherein said adhesive layer is cured thereby bonding said first portion of said hinge attachment component directly to said glass panel;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive layer between said glass panel and said hinge attachment component, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 17

said layer of adhesive bonding said hinge attachment component to said first surface of said glass panel prior to installation of said assembly in the vehicle and without exposure of said hinge attachment component on said second surface of said glass panel.

96 -124- (thrice amended)

A movable door lift window assembly adapted and suitable for use in a vehicle, said door lift window assembly comprising:

a glass panel having a first surface and an opposing second surface;

at least one load-bearing lift bracket attachment member bonded directly to said first surface of said glass panel by a layer of adhesive consisting essentially [an amount] of a rapid set, rapid cure, two-component urethane adhesive disposed between said first surface of said glass panel and said at least one lift bracket attachment member;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive layer between said glass panel and said lift bracket attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said adhesive layer bonding said load-bearing lift bracket attachment member to said first surface of said glass panel prior to installation of said assembly in the vehicle and without exposure of said lift bracket attachment member on said second surface of said glass panel.



Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 18

97 -125- (thrice amended)

A liftgate window assembly adapted and suitable for use in a vehicle, said liftgate comprising:

a glass panel having a first surface and an opposing second surface; and

at least one load-bearing hinge attachment member having a first member bonded directly to said first surface of said glass panel by a layer of adhesive consisting essentially of a rapid set, rapid cure, two-component adhesive disposed between a portion of said first surface of said glass panel and said first member, said hinge further having a second member positionably movable with respect to said first member and adapted for attachment to a vehicle;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive layer between said first surface of said glass panel and said hinge attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said adhesive layer bonding said load-bearing hinge attachment member to said first surface of said glass panel prior to installation of said assembly in the vehicle and without exposure of said hinge attachment member on said second surface of said glass panel.

98 -126- (thrice amended)

A sliding window assembly adapted and suitable for use in a vehicle, said assembly comprising:

a first glass panel having a first surface and an opposing second surface;

93

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 19

at least one guide track bonded directly to said first surface of said first glass panel by a layer of adhesive consisting essentially [an amount] of a rapid set, rapid cure, two-component urethane adhesive, said guide track having a channel configured to slidably receive a glass panel; and

a second glass panel slidably disposed in said channel of said guide track;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive layer between said glass panel and said channel, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said adhesive layer bonding said guide track to said first surface of said first glass panel prior to installation of said assembly in the vehicle and without exposure of said guide track on said second surface of said first glass panel.

99-127- (twice amended)

98

The sliding window assembly of claim ~~126~~ wherein said first surface of said first glass panel has a pin component bonded to it by [an amount of] said adhesive layer, and said second glass panel has a latch component bonded to it by a second layer [an amount] of said adhesive, wherein said latch component is adapted to releasably engage said pin component.

94

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 20

~~101~~ - ~~128~~ (twice amended)

The sliding window assembly of claim ~~128~~<sup>100</sup> wherein said at least one guide track is bonded to said third glass panel by [an amount] a third layer of said adhesive.

~~102~~ - ~~130~~ (twice amended)

The sliding window assembly of claim ~~129~~<sup>101</sup> wherein said at least one guide track comprises:

D24  
an upper guide track bonded by a portion [an amount] of said adhesive layer to an upper edge of said first surface of said first glass panel and by said third layer of said adhesive to an upper edge of said third glass panel; and

a lower guide track bonded by another portion [an amount] of said adhesive layer to a lower edge of said first surface of said first glass panel and by a portion of said third layer of said adhesive to a lower edge of said third glass panel.

~~103~~ - ~~131~~ (amended)

A vehicular window assembly suitable for use in a vehicle, said window assembly comprising:

a glass panel having a first surface and an opposing second surface;

D25  
a load-bearing attachment member selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 21

said glass panel and said load-bearing attachment member joined by an adhesive layer;

*DZend*  
said adhesive layer consisting essentially of a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between said first surface of said glass panel and said attachment member, said adhesive comprising a mixture of an isocyanate component and a polyol component mixed prior to deposition on said glass panel, said layer of adhesive being cured such that said layer of cured adhesive bonds said load bearing attachment member to said first surface of said glass panel;

wherein said rapid set characteristic is such that after mixing said isocyanate and polyol components, and after promptly contacting said attachment member with said layer of adhesive and said first surface of said glass panel, said adhesive sets whereby said attachment member and said glass panel are held by said adhesive against movement resulting from the weight of said attachment member on said panel, and wherein said rapid cure characteristic is such that said adhesive cures to bond said attachment member to said first surface of said glass panel in a time period of less than about 60 minutes from the time of adhesive set;

said layer of cured adhesive bonding said load bearing attachment member to said first surface of said glass panel prior to installation of said assembly in the vehicle and without exposure of said attachment member on said second surface of said panel.

---

118 -146- (amended)

*D26*  
The bonded window assembly of claim <sup>116</sup>~~144~~ wherein said load bearing attachment member is a hinge, said hinge comprising a first portion and a second portion that

*96*

Applicant : Jeffrey A. Lewno  
Serial No. : 08/924,405  
Page : 22

D26 and is movable with respect to said first portion, and wherein said first portion is bonded to said first surface of said glass panel by said adhesive layer disposed between and contacting said first portion and said glass panel.

120-148- (amended)

A vehicular window assembly suitable for use in a vehicle, said window assembly comprising:

a glass panel having a first surface and an opposing second surface and comprising a layer of glass frit disposed on said first surface;

D27 a load-bearing attachment member selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components and hinge members; and

said load-bearing attachment member bonded to said layer of glass frit by a layer of adhesive consisting essentially of rapid set, rapid cure, two-component urethane adhesive disposed between said glass frit layer and said attachment member, said layer of adhesive being cured to form a joint suitable for use on a vehicle, said urethane adhesive being formed from an isocyanate component and a polyol component which are combined by mixing prior to disposition between said glass frit layer and said attachment member;

said layer of cured adhesive bonding said load-bearing attachment member to said layer of glass frit on [first surface of] said glass panel prior to installation of said